

**To:** Robert Law[rlaw@demaximis.com]; Vaughn, Stephanie[Vaughn.Stephanie@epa.gov]  
**Cc:** betsy.ruffle@aecom.com[betsy.ruffle@aecom.com]; Willard Potter[otto@demaximis.com]  
**From:** LaPoma, Jennifer  
**Sent:** Thur 12/10/2015 7:41:38 PM  
**Subject:** RE: 17-mile LPRSA - BHHRA comments - EPA Response to CPG Nov. 11th ltr

Rob,

We will take a look at the approach you have outlined below.

I anticipate that we can get back to you on this matter by late Monday/early Tuesday.

**From:** Robert Law [mailto:rlaw@demaximis.com]  
**Sent:** Thursday, December 10, 2015 1:27 PM  
**To:** LaPoma, Jennifer <LaPoma.Jennifer@epa.gov>; Vaughn, Stephanie <Vaughn.Stephanie@epa.gov>  
**Cc:** betsy.ruffle@aecom.com; Willard Potter <otto@demaximis.com>; William Hyatt <william.hyatt@klgates.com>  
**Subject:** 17-mile LPRSA - BHHRA comments - EPA Response to CPG Nov. 11th ltr

Jennifer and Stephanie:

AECOM had already completed the risk calculations by the time the EPA's December 4, 2015 letter arrived with further guidance on the application of relative potency factors (RPFs) for chlordane isomers (cis-nonachlor, oxychlordane, and trans-nonachlor). As the CPG had not heard back from the Region following our October 22, 2015 call with Region 2 or the CPG's November 11, 2015 letter requesting further guidance regarding the application of the chlordane RPFs, CPG proceeded with the risk/hazard calculations based on best professional judgment in order to meet the December 18, 2015 delivery schedule of the revised 17-mile BHHRA.

The EPA's December 4, 2015 letter provides additional information from the Superfund Technical Support Center indicating that the higher of the male and female rat RPF should be used for calculation of noncancer hazard, and the RPFs do not need to be applied to cancer. AECOM used the average of the male and female RPFs, and conservatively applied them to calculation of cancer risk, as well as noncancer hazard. The attached table presents a comparison of the two sets of risk/hazard estimates for the mixed fish diet and crab muscle/hepatopancreas (these compounds are not COPCs in surface water or sediment). Cancer risks greater than 1E-6 and noncancer hazards greater than 0.1 are highlighted as these are the cases where the chemical is identified as a potential COC.

The attached table summarizes the risks and impact on COC identification for the two approaches:

- The here is no difference between the two approaches for noncancer effects -- trans-nonachlor is identified as a potential COC for the mixed fish diet and oxychlordan is identified as a potential COC for the crab muscle & hepatopancreas diet under both approaches.
- For potential cancer effects, we identify all three isomers as potential COCs for the mixed fish diet and oxychlordan for the crab muscle & hepatopancreas. If we were to calculate cancer risk without RPFs, per the Region's December 4 letter, these chemicals would no longer be identified as COCs based on potential cancer effects. Thus, the approach taken by CPG is conservative in this regard.

In summary, the CPG believe the its approach is reasonable and appropriate and that revising the fish and crab risk calculations at this time pursuant to the Region's December 4, 2015 letter is not warranted given that it does not change the risk assessment outcome, nor is there sufficient time in order to meet the December 18, 2015 delivery date. If the Region wishes for the CPG to incorporate this change then the delivery of the revised 17-mile BHHRA will delayed until January 2016.

Please let me know how the Region wishes to proceed on this matter ASAP. Please contact Bill Potter or me if you have any questions.

Thank you.

R/

Rob

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